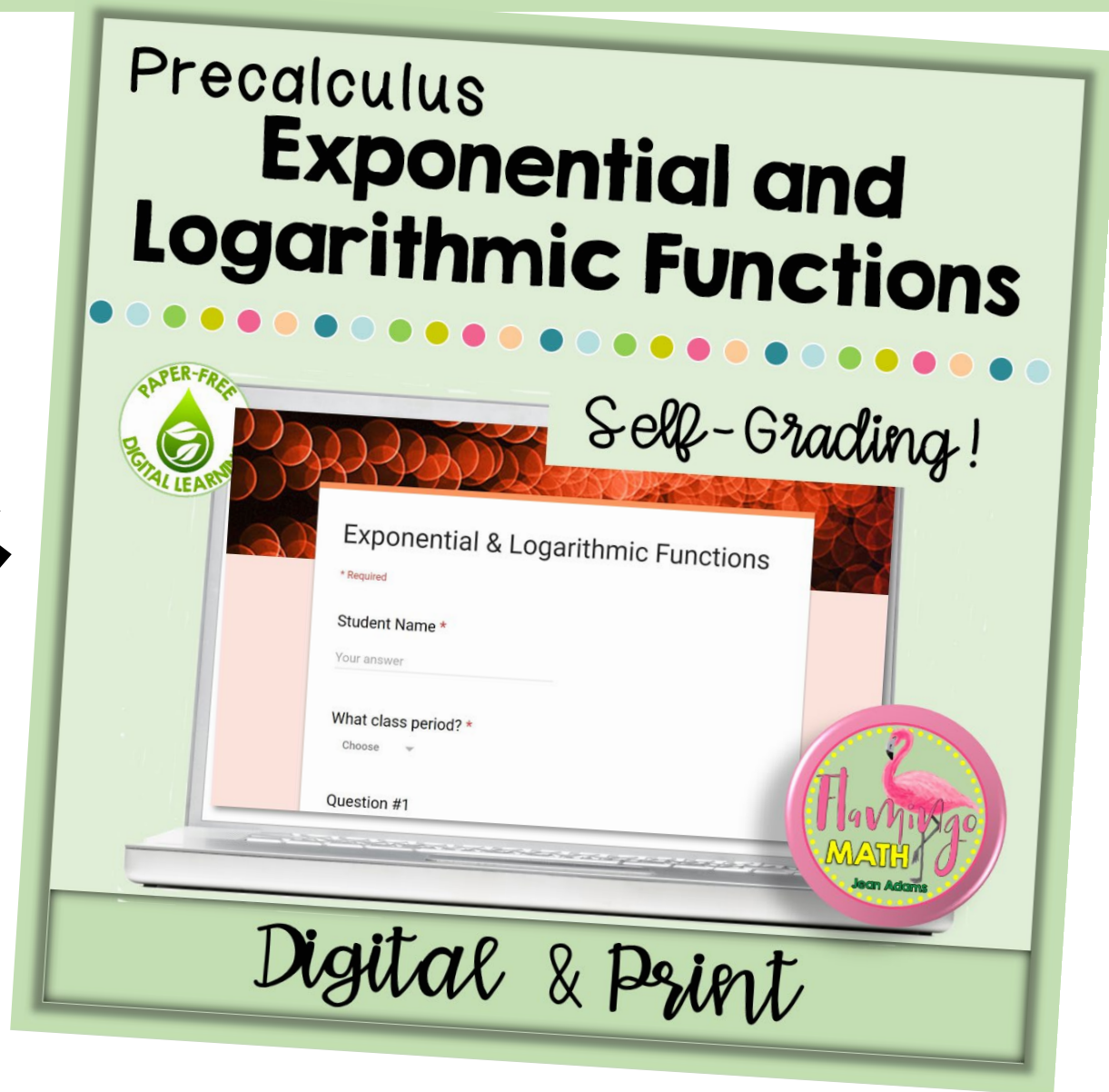
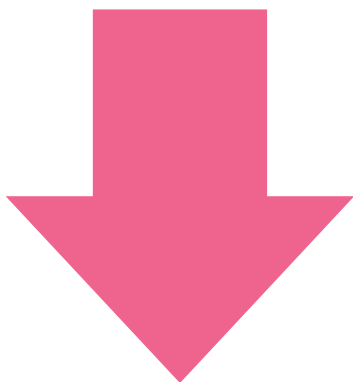


Precalculus with Google Forms and Print!

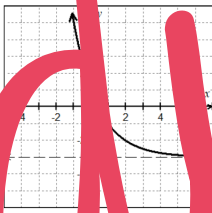
Self-Grading
Digital
No Prep Quiz

**Take a look
inside!**



Exponential & Logarithmic Functions

* Required

Name:	Date:	Score:
1. If $g(x) = 2^{x+3} - 1$ is a transformation of $f(x) = 2^x$, then $g(x)$ is: [A] shifted right 3 units and down 1 unit [B] shifted up 3 units and left 1 unit [C] shifted left 3 units and down 1 unit [D] shifted up 3 units and right 1 unit	2. Match the graph with the correct function. [A] $y = \left(\frac{1}{2}\right)^{x-2} - 3$ [B] $y = \left(\frac{1}{2}\right)^{x+2} - 3$ [C] $y = 2^{x-3} - 2$ [D] $y = -2^{x+2} - 3$ 	
3. Find the domain of $h(x) = 2 - e^x$ [A] $(2, \infty)$ [B] $[0, \infty)$ [C] $(-\infty, 2)$ [D] $(-\infty, \infty)$	4. Find the range of $g(x) = 3 + e^{-x}$ [A] $(-\infty, 3)$ [B] $(-\infty, 3]$ [C] $(0, \infty)$ [D] $(-\infty, \infty)$	

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Use a graphing utility to graph the function $y = \frac{2}{e^{-\frac{0.2}{x}}}$. Use the graph to find the vertical and horizontal asymptotes. [A] $x = 1, y = 0$ [B] $x = 0, y = 0$ [C] $x = 0$ only [D] $x = 1$ only	6. \$3500 is invested at a rate of 9% compounded continuously. What is the amount in the account at the end of 18 years? [A] \$8,008.61 [B] \$7,493.53 [C] \$17,685.82 [D] \$68,932.98
7. A small town's population increases according to the model $P(t) = 250 e^{0.47t}$ where $t = 0$ corresponds to 2010. Use the model to determine the population in the year 2020. Round your answer to the nearest integer. [A] 400 [B] 4091 [C] 23,716 [D] 27,487	8. Evaluate $\frac{3 \ln 5}{7 \ln 6 - 2 \ln 7}$. Round your answer to four decimal places. [A] -2.6559 [B] 0.5582 [C] -3.8222 [D] -11.6058

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9. Find the domain of the function
 $f(x) = 3 - \log(x^2 - 4)$

- [A] $(-\infty, -2) \cup (2, \infty)$
- [B] $(-\infty, 2) \cup (2, \infty)$
- [C] $(-\infty, -2)$
- [D] $(2, \infty)$

10. Your physics class took an exam and then tested every month with an equivalent test. The average score for the class was given by the human memory model $f(t) = 85 - 16 \log(t + 1)$, $0 \leq t \leq 12$, where t is the time in months. What is the average score for your class after 5 months?

- [A] 56
- [B] 59
- [C] 73
- [D] 74



11. Use the properties of logarithms to expand

$$\log_2 \sqrt{\frac{x^2}{y}}$$

- [A] $\frac{1}{2} [\log_2 x - \log_2 y]$
- [B] $\log_2 x - \frac{1}{2} \log_2 y$
- [C] $\frac{1}{2} [\log_2 x + \log_2 y]$
- [D] $\log_2 x + \frac{1}{2} \log_2 y$

12. Use the properties of logarithms to condense

$$\frac{1}{4} \log_b 16 - 2 \log_b 3 + \log_b 7$$

- [A] $\frac{14}{9}$
- [B] $\log_b \frac{2}{63}$
- [C] $\log_b 12$
- [D] $\log_b$

17. Solve for t : $100097t = 1$. Round your answer to three decimal places.

- [A] -256.176
- [B] -1237.113
- [C] -2.589
- [D] 16.778



13. Evaluate $\log_a 18$, given that $\log_a 2 = 0.2789$ and $\log_a 3 = 0.4421$

- [A] 1.1631
- [B] 1.4420
- [C] 0.2466
- [D] 0.0349

14. Simplify $\ln \sqrt[3]{e^2 x}$

- [A] $\frac{2e}{3} + \frac{1}{3} \ln x$
- [B] $\frac{2}{3} + \ln \frac{x}{3}$
- [C] $\frac{2}{3} + \frac{1}{3} \ln x$
- [D] $\frac{2e}{3} + \ln \frac{x}{3}$

15. Simplify $2e^{3 \ln(x+1)}$

- [A] $2(x+1)e^3$
- [B] $6(x+1)e^3$
- [C] $2(x+1)e^3$
- [D] $2(x+1)^3$

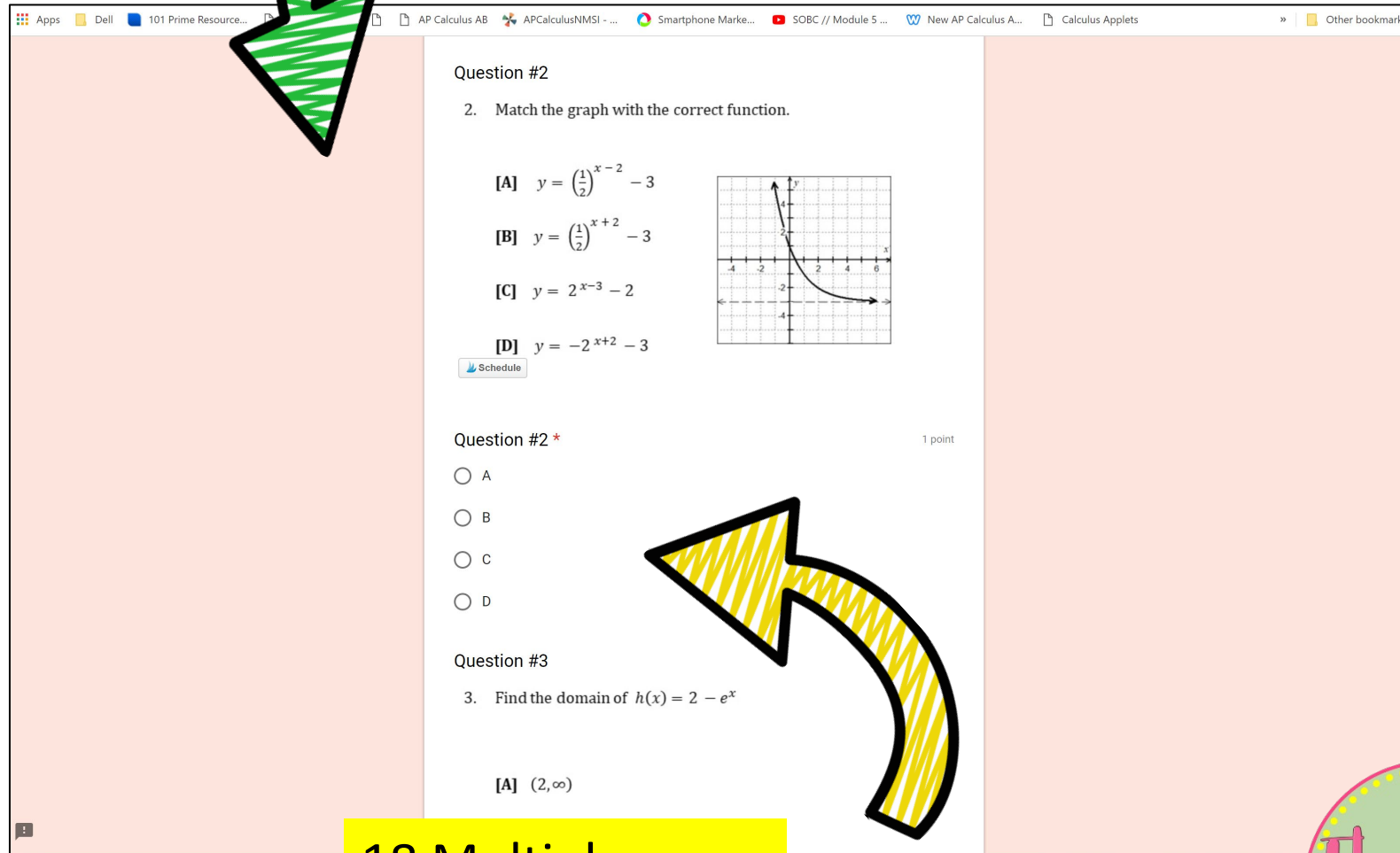
16. Solve for x : $2^{1-x} = 3^x$

- [A] $\ln \frac{1}{3}$
- [B] $\frac{\ln 2}{\ln 6}$
- [C] $\ln 3 + \ln 2$
- [D] $\ln \frac{2}{3}$

18. The spread of a virus through a small town is modeled by $y = \frac{1000}{1+990e^{-0.7t}}$, where y is the total number of infected after t days. Find the number of days when 820 people are infected with the virus.

- [A] 10
- [B] 11
- [C] 12
- [D] 13

Your students can record answers on a Google Form for easy grading.



Question #2

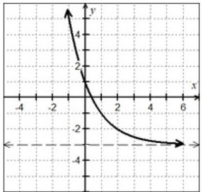
2. Match the graph with the correct function.

[A] $y = \left(\frac{1}{2}\right)^{x-2} - 3$

[B] $y = \left(\frac{1}{2}\right)^{x+2} - 3$

[C] $y = 2^{x-3} - 2$

[D] $y = -2^{x+2} - 3$



[Schedule](#)

Question #2 *

1 point

☐ A

☐ B

☐ C

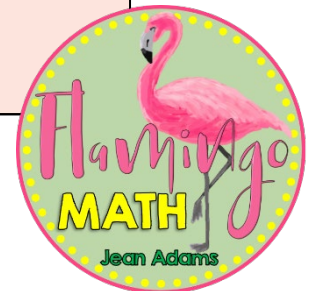
☐ D

Question #3

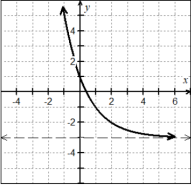
3. Find the domain of $h(x) = 2 - e^x$

[A] $(2, \infty)$

18 Multiple
Choice Prompts



Blackline Masters, too!

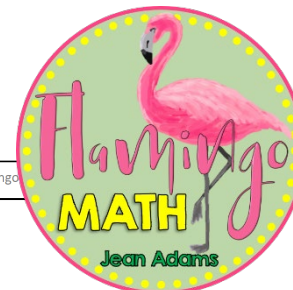
Name:	Date:	Score:
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Student Recording Sheet

Exponential & Logarithmic Functions		Name:
1.		2.
3.		4.
5.		6.
		8.

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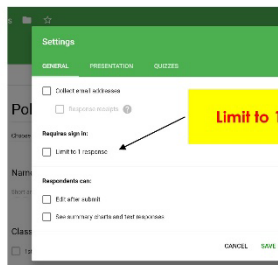


SELF-GRADING

First, The Basics:

- 1.) Have access to the Internet.
- 2.) Have a Google account – this is FREE and easy to create.
- 3.) Every student who uses the activity needs their own Google Account and the Google Forms App.
- 4.) Students can submit their finished school is one-to-one. Using Google is not a requirement.
- 5.) If you want to make a hard copy

Click the Gear and Check S



Changing Point Values:

Every question is set at a value of 1 point each.

16 questions show total points: Total points: 16

To alter the point values:

- 1.) Click on any question.
- 2.) Click ANSWER KEY (located at the bottom of the question).
- 3.) Click on arrow up/down to change the point value.

Self-Grading

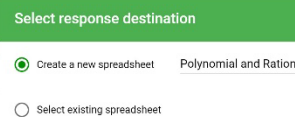
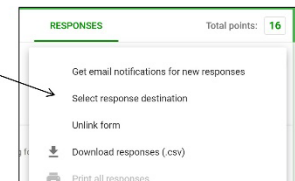
From your teacher copy you can see the GOOGLE SHEET to track student data.

On the RESPONSES TAB:

Click the three vertical dots (snowman) to begin the set-up for creating a spreadsheet.

Self-Grading Set-Up & Spreadsheet:

Click **SELECT RESPONSE DESTINATION**. Then create a new spreadsheet. This will create the spreadsheet and will save by default to your GOOGLE DRIVE Folder

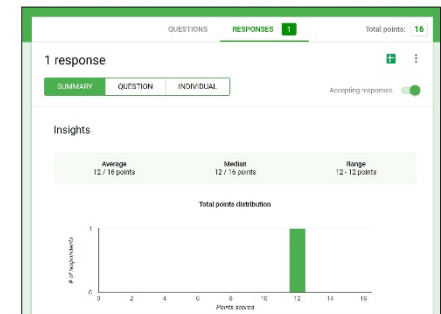


To view the student responses on the spreadsheet click here:

Viewing Student Responses:

Teachers can check responses through the **RESPONSE Tab** using a bar graph **SUMMARY**, a **QUESTION** report or an **INDIVIDUAL** student report.

If you choose to create a GOOGLE SHEET, the data will also be collected for students in the **SPREADSHEET**, which will allow sorting and an overview of all responses as shown below.



Timestamp	Score	Name	Class Period	1) Which of the following
10/28/2019 7:54:10	11 / 16	Jean Adams	1st period	D

Low Prep



Step-by-Step Instructions